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TYPE OF THE GENUS PANICUM.

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IN a recent article¹ Dr. J. A. Nieuwland has discussed the Type of the Genus Panicum. The author maintains that the name Panicum should be applied to the group containing the historic type, *Panicum italicum*, and that the group to which the name is applied by recent authors, and which contains such species as *Panicum dichotomum* L. and *P. capillare* L., should receive a new name. For this group he proposes the name Chasea, and lists under this name several species of Panicum.

Due probably to his limited library and herbarium facilities and his unfamiliarity with the group of grasses involved in the discussion, the author has made a variety of errors. It seems worth while placing upon record certain corrections as to facts together with a few statements concerning differences of opinion.

I agree with the author that the historic type of Panicum is *P. italicum* L. If the name Panicum should be applied to the group containing *P. italicum* L., then the name Milium should be applied to the genus containing *P. miliaceum*, the historic type of Milium. It may be remarked that, after 1753 the name Panicum was used in this sense by Miller, Adanson, and Moench, and more recently by Bubani.² The whole subject of the type of the genus Panicum has been discussed in the recent revision of the North American species³ which, however, Dr. Nieuwland apparently has not seen.

¹ The American Midland Naturalist 2: 60. 1911.

² Fl. Pyren. 4: 261. 1901.

³ Contr. Nat. Herb. 15: 11-15. 1910.

The author attempts to defend his opinion by citing the rules of the Vienna Code. I submitted this very question to Prof. A. Engler, who stated that according to the rules, when the Linnaean genus *Panicum* was divided the name should go with the group having the greater number of species. It must be borne in mind that the Vienna rules do not dictate the historic type of a genus as the type species to be chosen. Linnaeus himself indicates no type but does make it evident from his description of the genus *Panicum* and his note appended to that description¹ that he does not consider as typical those species with awns or involucrate bristles. I believe that according to either the Vienna or the American Code, the name *Panicum* should be applied to the group containing *P. miliaceum* and that under no set of principles is the publication of the new name *Chasea* justified.

Dr. Nieuwland cites Linnaeus' *Philosophia Botanica* (pp. 167 and 168) as authority for applying the name *Panicum* to the involucrate species. But by the same authority he should apply the name *Milium* to the group he has named *Chasea*.

The author assumes that "Fernald and Robinson" and "Parrish" are not following the Vienna Code, when the name *Setaria* is retained for the involucrate species of *Panicum*, since there is an earlier homonym, "Acherson [Acharius] having given it to a group of lichens in 1798." Dr. Nieuwland has overlooked the provision of Article 50, "No one is authorized to reject . . . a name . . . because of the existence of an earlier homonym which is universally regarded as non-valid . . ."

But, after deciding that the name *Panicum* should apply to the genus usually known as *Setaria* or *Chaetochloa* he says, "This procedure leaves the other genus hitherto called *Panicum* by the authors, without a name, as far as I am able to ascertain, and I propose that of *Chasea*." However there are already several published names available, among which may be mentioned, *Urochloa* Beauv. 1812, based on *U. panicoides* (*Panicum Helopus* Trin.); *Paractaenum* Beauv. 1812; *Steinchisma* Raf. 1830; *Eriolytrum* Desv. 1830; *Phanopyrum* Nash, 1903. It might be inferred that the author excludes all the above groups from *Chasea* were it not for the fact that he considers as synonyms of *Panicum* (*Chaetochloa*) the very distinct genera *Ixophorus* Schlecht. and *Chamaeraphis* "R. Br. 1810 (?)."

¹ Linn. Gen. Pl. ed. 5. 29. 1754.

Dr. Nieuwland states concerning *Setaria* Beauv. as a homonym, "Scribner recognizing this, called the genus *Chaetochloa*, but it had already been given a name, *Ixophorus* by Schlechtendal in 1861-62." I fear that Dr. Nieuwland did not read what Schlechtendal says, for the latter in proposing the genus *Ixophorus* (based on *Urochloa unisetata* Presl), shows how it differs from *Setaria*. Schlechtendal's article¹ was published in 1862, not "1861-1862."

I would call attention to what might be considered a defect in technique, namely, basing the new name *Chasea* on "Panicum of the authors not of Linnaeus or only in part." *Panicum* "of the authors" is very indefinite. The reader is led to infer the application of the name from the species included. It is especially misleading since half of the species mentioned were included in *Panicum* by Linnaeus. It would have been more satisfactory, or at least more definite, if the author had indicated a type species, or based the name *Chasea* upon the *Panicum* of a definite author.

Dr. Nieuwland transfers certain species of *Chaetochloa* to *Panicum* and other species of *Panicum* to *Chasea*. *Panicum occidentale* Nieuwl. (*Chaetochloa occidentalis* Nash), is invalidated by *Panicum occidentale* Scribn. 1899. *Panicum versicolor* Nieuwl., based on *Chaetochloa versicolor* Bicknell, is invalidated by *Panicum versicolor* Doell, 1877. *Chasea pubescens* Nieuwl. is based on *Panicum pubescens* Lam. But as has been shown in another place,² the name to be used for this species, under *Panicum*, is *P. scoparium* Lam. *Chasea prolifera* Nieuwl., based on *Panicum proliferum* Lam., is untenable because the latter name is a synonym of *P. miliare* Lam. The author probably intended to transfer *P. dichotomiflorum* Michx. to which the name *P. proliferum* has been applied by some American botanists.

Another name, *Chasea violacea* Nieuwl., based on "*Panicum violaceum* Linn." is unfortunate, as there is no such species. There is a *Panicum violaceum* Lam., which is a species of *Pennisetum*. It is possible the author meant *Panicum miliaceum* L. but the difference can scarcely be explained as a typographical error.

It is well to mention certain variations in methods of technique in the bibliographic citations. For example, "*Panicum virgatum* Linn., 1753"; when the author's name is abbreviated it is followed

¹ *Linnaea* 31: 420. 1862.

² *Contr. Nat. Herb.* 15: 294. 1910.

by period and comma in fifteen cases, and by period only, in eight cases. When the name is not abbreviated it is usually followed by a comma but a period is used after Nash in one case. The name Scribner is abbreviated three times as "Scribn.," twice as "Scrib.," and once is unabbreviated. In one case a period is placed after Nash in parentheses, and in another case between the name and author. In the citation "Setaria Beauvais, 1812 not Achers., 1798," it may be pointed out that the first author spelled his name "Beauvois" in his "Essai," and the second author referred to is Acharius. *Chaetochloa Scribn.* was published in 1897 and not 1791. *Setaria italica* was published by Roemer and Schultes in 1817 and not 1897. *Panicum dichotoma* should be *Panicum dichotomum*.

These errors are in part typographical and concern non-essentials but an unusual number may indicate carelessness, and carelessness in non-essentials may give the impression of carelessness in essentials.

It may be noted that the author abbreviates his name as, "Nwd." This is not in accordance with general usage nor in conformity with the recommendation of the Paris Code (Art. 52, especially the commentary thereon, where it is shown that the abbreviation Hkr is susceptible of 2209 interpretations, provided the name begins with H and there are only two other consonants, and not including the combination of vowels i e u).

The above notes emphasize the principle that details of nomenclature should not be considered apart from the study of the organisms concerned, and that it is necessary for an author to be familiar with the group of plants whose nomenclature he attempts to rectify. It is well to heed Article 4 of the Vienna Code, that next in importance to (1) fixity of names, and (2) the avoidance or rejection of names which may cause error or confusion, is the avoidance of all useless creation of names, otherwise the situation is beclouded rather than clarified.

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